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09/527,350	03/17/2000	MASAHITO NIIKAWA	15162/01620	6531

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SIDLEY AUSTIN LLP  
717 NORTH HARWOOD  
SUITE 3400  
DALLAS, TX 75201

EXAMINER
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HANNETT, JAMES M

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## DETAILED ACTION

### *Response to Arguments*

Applicant's arguments filed 4.24.2006 have been fully considered but they are not persuasive. The applicant has amended the claims and argues that Matsuzaki shows a process of erasing the display in response to a power-off command. The applicant then argues that neither of the cited references shows or suggests completing the image being written when a command to turn off the device is entered while writing of the image is in progress.

The examiner disagrees with the applicant Yamazaki discloses, in Figure 1, an electronic information device comprising: a display (13); an electronic power source for supplying driving power to the display (see col. 4, Lines 24-30). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14 and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a certain period, the computer checks to see if writing to the LCD display is complete (75). If the writing is not complete, (writing of image is in progress) subroutine (75) sends a command to reset the timer value (74). (delaying execution of the command to turn off the device) Resetting the timer value is viewed by the examiner as initiating a command to turn off the power to the display. However, the power off command will not be executed until the timer value has been allowed to reach zero. This would result if the computer has completed writing to the video memory and no keys has been pressed on the computer during the set time period in (74). Therefore, Yamazaki teaches completing the image being written when a command to turn off the device is entered while writing of the image is in progress.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

- 1: Claims 1-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,768,604 Yamazaki et al in view of USPN 5,627,569 Matsuzaki et al.
- 2: Regarding claims 1 and 15. Yamazaki discloses, in Figure 1, an electronic information device comprising: a display (13); an electronic power source for supplying driving power to the display (see col. 4, Lines 24-30). Yamazaki teaches that the image displayed on the display (13) is display data stored in the video memory (223). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14 and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a certain period, the computer checks to see if writing of the image which is being written on the display (13) based on the display data stored in (223) to the LCD display is complete (75). If the writing is not complete, subroutine (75) sends a command to reset the timer value (74). Resetting the timer value is viewed by the examiner as initiating a command to turn off the power to the display. However, the power off command will not be executed until the timer value has been allowed to reach zero. This would result if the computer has completed writing to the video memory and no keys has been pressed on the computer during the set time period in (74). Therefore, Yamazaki teaches a controller which, in response to a command to turn off the electric power source (command to reset the power down counter after leaving subroutine (75) which is issued while the display is performing writing. Yamazaki teaches that

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in subroutine (75) if display writing is occurring an initiate power down command is executed which results in the counter to be reset. Furthermore, Yamazaki teaches turning off the electric power source (shift to standby mode) after completion of the writing. Yamazaki teaches in Figure 7 that if video memory writing is still occurring, subroutine (75) will not power down until the computer detects that no video writing is occurring. Yamazaki does not expressly disclose the use of a display with uses a material having a memory effect.

Matsuzaki reveals that it is well known in the art to utilize ferro-electric liquid crystal displays for their memory effect (see col. 1, lines 31-56). Matsuzaki et al further teaches that an advantage of using the LCD display with a memory feature is that the image written to the display based on the display data is displayed on the display even after the power source to the display has been turned off Column 1, Lines 50-53 and Column 1, Lines 62-64. Therefore, Matsuzaki et al teaches that the display displays a complete image based on the data sent to the display after the power source has been turned off.

It would have been obvious to one of ordinary skill in the art to modify Yamazaki's teachings of displaying image data using a conventional display with Matsuzaki's teachings of a display with a memory effect. One would have been motivated to implement Matsuzaki's teachings in an effort to retain a display state for a substantially long time. The examiner further notes that displays with a memory effect are known for consuming less electric power.

3: Regarding claims 2 and 16, Yamazaki discloses that the information is written on the display based on image data (see col. 3, line 2).

4: Regarding claims 3 and 17, Yamazaki discloses, in figure 1, an image pickup unit

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(15) which picks up an image of an object by use on an image sensor and produces the image data (see col. Line 6).

5: Regarding claim 4, Yamazaki teaches a computer system with a power saving mode which inhibits a power off command to the display once writing of image data is detected.

Yamazaki does not expressly disclose displaying and writing thumbnail images.

Official Notice is taken that it is well known in the art to display thumbnail images on a computer monitor.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for Yamazaki to implement such teachings since thumbnail images are notoriously associated with display devices.

6: Regarding claims 5 and 19, see claim 1 above. In addition, Yamazaki discloses an automatic power-off process which turns off the electric power source at a specified time (see col. 4; lines 24-50). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14 and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a certain period, the computer checks to see if writing to the LCD display is complete (75). Yamazaki teaches that the image displayed on the display (13) is display data stored in the video memory (223).

Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14 and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a certain period, the computer checks to see if writing of the image which is being written on the display (13) based on the display data stored in (223) to the LCD display is complete (75). If the writing is not complete, subroutine (75) sends a command to reset the timer value (74). Resetting the timer value is viewed by the examiner as initiating a command to turn off the power to the display. However,

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the power off command will not be executed until the timer value has been allowed to reach zero. This would result if the computer has completed writing to the video memory and no keys has been pressed on the computer during the set time period in (74). Therefore, Yamazaki teaches a controller which, in response to a command to turn off the electric power source (command to reset the power down counter after leaving subroutine (75) which is issued while the display is performing writing. Yamazaki teaches that in subroutine (75) if display writing is occurring an initiate power down command is executed which results in the counter to be reset. Furthermore, Yamazaki teaches turning off the electric power source (shift to standby mode) after completion of the writing. Yamazaki teaches in Figure 7 that if video memory writing is still occurring, subroutine (75) will not power down until the computer detects that no video writing is occurring. Furthermore, Yamazaki teaches turning off the electric power source (shift to standby mode) after completion of the writing. Yamazaki teaches in Figure 7 that if video memory writing is still occurring, subroutine (75) will not power down until the computer detects that no video writing is occurring. Yamazaki does not expressly disclose the use of a display with uses a material having a memory effect.

Matsuzaki reveals that it is well known in the art to utilize ferro-electric liquid crystal displays for their memory effect (see col. 1, lines 31-56). Matsuzaki et al further teaches that an advantage of using the LCD display with a memory feature is that the image written to the display based on the display data is displayed on the display even after the power source to the display has been turned off Column 1, Lines 50-53 and Column 1, Lines 62-64. Therefore, Matsuzaki et al teaches that the display displays a complete image based on the data sent to the display after the power source has been turned off.

It would have been obvious to one of ordinary skill in the art to modify Yamazaki's teachings of displaying image data using a conventional display with Matsuzaki's teachings of a display with a memory effect. One would have been motivated to implement Matsuzaki's teachings in an effort to retain a display state for a substantially long time. The examiner further notes that displays with a memory effect are known for consuming less electric power.

7: Regarding claims 6 and 20, Yamazaki discloses shifting from a "normal power-on state" to a "standby state" after a predetermined timing period has elapsed; and thus, inherently teaches a timer for counting a specified time period from a specified operation of the electronic information device and for determining the specified time to turn off the electric power source.

8: Regarding claims 7 and 21, Yamazaki discloses the specified operation includes an operation of a key switch (see col. 4, line 40).

9: Regarding claims 8 and 22, see claim 2 above.

10: Regarding claims 9 and 23, see claim 3 above.

11: Regarding claim 10, see claim 4 above.

12: Regarding claims 11 and 24, Yamazaki discloses, in Figure 1, an electronic information device comprising: a display (13); an electronic power source for supplying driving power to the display (see col. 4, Lines 24-30). Yamazaki teaches that the image displayed on the display (13) is display data stored in the video memory (223). Furthermore, Yamazaki et al teaches on Column 5, Lines 1-14 and Lines 34-50 and depicts in Figure 7 that after no keys or actions are performed (73) for a certain period (no input from the first input member), the computer checks to see if writing to the LCD display (13) based on the display data stored in (223) to the LCD display is complete (75). If the writing is not complete, subroutine (75) sends a command to reset



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the timer value (74). Resetting the timer value by (75) is viewed by the examiner as initiating a command to turn off the power to the display. Furthermore, after subroutine (75) issues a command to reset the timer (74), if a key was pressed at (73), the command to reset (74) from subroutine (75) will invalidate the original resetting operation. The examiner points out that the claim does not specify what the command from the first input member is. Therefore, the examiner has viewed the claim broadly. However, the power off command will not be executed until the timer value has been allowed to reach zero. This would result if the computer has completed writing to the video memory and no keys has been pressed on the computer during the set time period in (74). Therefore, Yamazaki teaches a controller which, in response to a command to turn off the electric power source (command to reset the power down counter after leaving subroutine (75) which is issued while the display is performing writing. Yamazaki teaches that in subroutine (75) if display writing is occurring an initiate power down command is executed which results in the counter to be reset. Furthermore, Yamazaki teaches turning off the electric power source (shift to standby mode) after completion of the writing. Yamazaki teaches in Figure 7 that if video memory writing is still occurring, subroutine (75) will not power down until the computer detects that no video writing is occurring. Furthermore, The examiner views the first input member as a key pressed indicating power down operation. As discussed above when this action occurs the system does not instantly shutdown, the system completes writing the video data from video memory (223) to the display (13). Therefore, the complete image stored in the video memory (223) will be written to the display after a key has been pressed indicating shutdown. Yamazaki does not expressly disclose the use of a display with uses a material having a memory effect.

Matsuzaki reveals that it is well known in the art to utilize ferro-electric liquid crystal displays for their memory effect (see col. 1, lines 31-56). Matsuzaki et al further teaches that an advantage of using the LCD display with a memory feature is that the image is displayed on the display even after the power source to the display has been turned off Column 1, Lines 50-53 and Column 1, Lines 62-64. Therefore, Matsuzaki et al teaches that the display is capable of displaying a complete image after the power source has been turned off.

It would have been obvious to one of ordinary skill in the art to modify Yamazaki's teachings of displaying image data using a conventional display with Matsuzaki's teachings of a display with a memory effect. One would have been motivated to implement Matsuzaki's teachings in an effort to retain a display state for a substantially long time. The examiner further notes that displays with a memory effect are known for consuming less electric power.

13: Regarding claims 12 and 25, Yamazaki discloses the first input member is for inputting a command to shut off the supply of electric power to the display (see figure 4 where the suspend switch 410 shuts off power to the display).

14: Regarding claims 13 and 26, Yamazaki discloses, in figure 4, a second input member (Key Input Suspend SW 411) with which an operator can input a command which is different from the command inputted with the first input member; wherein, the controller controls the electronic information device in accordance with the command sent from the second input member regardless of whether or not writing on the display is being performed.

15: Regarding claims 14 and 27, Yamazaki teaches a computer system with a power saving mode which inhibits a power off command to the display once writing of image data is detected.

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Yamazaki also reveals the use of a camera connected to the computer system for inputting image data; and thus has a shutter button.

Official Notice is taken that it is well known in the art that the capturing of image data using the shutter button could be performed without affecting the writing of image data on a display (i.e. the image could be stored in the camera before it is sent to display; and thus it would have been obvious to one of ordinary skill in the art that the controller be able to control the electronic information device in accordance with the command sent from the second input member regardless of whether or not writing on the display is being performed since image capture does not directly affect writing on the display.

16: Regarding claim 18, see claim 4 above.

17: Regarding claim 28, see claim 1 above.

18: Regarding claim 29, see claim 19 above.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M. Hannett whose telephone number is 571-272-7309.

The examiner can normally be reached on 8:00 am to 5:00 pm M-F.

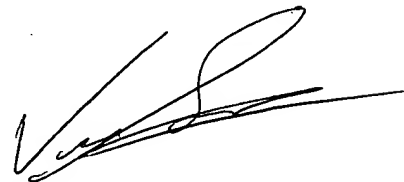
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivek Srivastava can be reached on 571-272-7304. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

James M. Hannett  
Examiner  
Art Unit 2612



JMH  
July 20, 2006



VIVEK SRIVASTAVA  
PRIMARY EXAMINER